

through 0.7 nm as to X-rays to utilize light at least having a component in wavelength ranging from 0.45 nm through 0.7 nm.

16. An X-ray mirror containing one type of material for mirror selected from the group consisting of titanium, silver, ruthenium, palladium, and nitride thereof, a carbide thereof, a boride thereof, diamond, diamond-like carbon, and boron nitride.

24. An X-ray exposure method comprising:
 an X-ray incidence step of making X-rays incident upon an X-ray mirror containing a material having an absorption edge only in a wavelength region other than 0.45 nm through 0.7 nm as to X-rays; and
 an exposure step of performing exposure with X-rays outgoing from said X-ray mirror and at least having a component in wavelength ranging from 0.45 nm through 0.7 nm.

40. A synchrotron radiation apparatus comprising a synchrotron radiation source and an X-ray mirror group including a plurality of X-ray mirrors upon which radiation outgoing from said synchrotron radiation source is incident, wherein
 said X-ray mirrors contain a material having an absorption edge only in a wavelength region other than 0.45 nm through 0.7 nm as to X-rays,
 the outgoing direction of said radiation outgoing from said synchrotron radiation source and the outgoing direction of reflected light outgoing from said X-ray mirror group are substantially identical, and

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said X-ray mirror is used to utilize light at least having a component in wavelength ranging from 0.45 nm through 0.7 nm.

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42. A synchrotron radiation method employing a synchrotron radiation apparatus comprising a synchrotron radiation source and an X-ray mirror group including a plurality of X-ray mirrors upon which radiation outgoing from said synchrotron radiation source is incident, said synchrotron radiation method comprising:

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a radiation incidence step of making radiation outgoing from the synchrotron radiation source incident upon an X-ray mirror containing a material having an absorption edge only in a wavelength region other than 0.45 nm through 0.7 nm as to X-rays, and

a reflected light emitting step of emitting reflected light from said X-ray mirror group in a direction substantially identical to the outgoing direction of the radiation outgoing from said synchrotron radiation source, said reflected light at least having a component in wavelength ranging from 0.45 nm through 0.7 nm.

SEE APPENDIX FOR CHANGES MADE TO CLAIMS

Please add the following new claims:

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--46. The X-ray exposure apparatus of claim 1, further comprising means altering a peak wavelength of said light emanating from said X ray mirror while maintaining a direction of said light emanating from said X ray mirror.